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AUTHOR	Mahlamaki-Kultanen, Seija; Hulkari, Kirsti
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ABSTRACT

The pedagogical functions of simple World Wide Web-based discussions during work-based learning periods in vocational education were examined in a study of a secondary-level work-based practical nursing program in Finland. The students (age range, 16 to 43 years) participated in 17 Web discussion groups during their 120-week practical nursing program. The discussion groups were designed to provide tutoring during workplace learning periods. Depending on the phase of the students' study, each group contained between 2 and 28 members. All the tutoring teachers had completed a 10-hour course on the principles of authentic Web discussion. The students' Web discussion data included 7,913 separate messages that were coded based on 13 quality criteria. The teachers' initial expectations regarding long authentic discussion chains were not completely fulfilled. Most discussions ended after the first follow-up question was answered. Nevertheless, the discussions were often quite authentic and relevant. Typically, the recognitions were factual and mostly informative. Only occasionally did someone notice an important topic on someone else's message in the discussion. All too often, meaningful topics were left without comment. It was suggested that the typical Finnish Web discussion style may be for students to open the Web forum only to read other members' messages rather than to write something themselves. (Contains 10 references.) (MN)

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Mahlamäki-Kultanen, Seija. Senior researcher, University of Tampere. Finland

Seija.Mahlamaki-Kultanen@hamk.fi

Hulkari, Kirsti. Project worker. Karkku College of Home Economics and Social Services. Finland

kirsti.hulkari@mail.vak.fi

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Pedagogical Functions of Simple Web-Discussion during Work-Based Learning Periods in Vocational Education

1. Introduction

Virtual learning environments offer new alternatives for the training and tutoring of work-based learning (Berry 2000; Greengard 1999; Lord 2001). Virtual learning environments can bring the realities of work life into everyday studying (Aarnio & Enqvist 2001, 27-28) but only if the studying in networks fulfils the principles of authentic dialogue. Dialogue means that the partners think and create new understanding and knowledge by acting together in an equal relationship. The prerequisites for a dialogue are activity and mutual commitment to a shared task. (Aarnio 1999, 32.) In nursing and service jobs and studies, the capability for professional dialogue is also an independent vocational objective.

Authentic means something real, which, in the case of work-based learning, emerges from everyday work as seen from the student's perspective and situation. Authenticity makes studying meaningful and relevant. Open and authentic questions from the tutoring teacher make it possible for the student to think and create schemes of knowledge instead of learning individual facts. (Aarnio & Enqvist 2001, 27-28.) The principle of authenticity means also that students can fulfil their own learning needs with new means. The role of the teacher should be only to keep the discussion going by making open, not too targeted questions. The result is reflected from the viewpoint of teachers' competence needs while tutoring student groups in a web-discussion.The present study is conducted in Finland, a country with apt technical prerequisites for virtual work-based learning (Sinko & Lehtinen 1999)

The Finnish vocational secondary level curricula include at least 20 study weeks of work-based learning in a degree of 120 study weeks. Work-based learning has to be targeted, tutored and evaluated in authentic workplace environments in cooperation between the enterprises and vocational institutes (National Board of Education 2000, 3). Since the restructuring of vocational education and the increased importance of work-based learning is a fairly recent development, it is also crucial to develop methods to guarantee the quality of learning.

The data in this study has mainly been collected from practical nurse education. Flanagan, Baldwin & Clarke (2000) describe work-based learning in nurse education as performance-related, problem-based, and focused on tackling complex work-based problems in management or care autonomously, collaboratively and innovatively (, autonomously managed, team-based and innovating). Quality criteria for the work-based learning periods in practical nurse education have been developed in an earlier study (Mahlamäki-Kultanen & Hulkari 2001).

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The purpose of this study is to discuss as broadly as possible the potential pedagogical functions of a simple web-discussion during work-based learning periods in vocational secondary level education. The web-discussion is analyzed from three main perspectives:

1. The possibilities to reach the targets of vocational curricula
2. The capability to conduct professional dialogue
3. Guaranteeing the quality of work-based learning periods

2. Material and methods

This study is based on data collected from an action-learning project in a Finnish vocational secondary level institute developing the use of simple web-discussion in the tutoring of work-place learning periods. The students were studying 120 study week degrees in practical nursing (17 groups), home economics (4 groups) or rural tourism (1 group), and they were in different phases of their studies. Overall, 197 students and 20 teachers took part in the discussion. The groups consisted of two pairs (2 students) or as many as 28 members, depending on the phase and vocational specialization of their studies. The age range was from 16 up to 43.

All the tutoring teachers completed a course on the principles of authentic web-discussion, including the technical tricks that are necessary in web-discussion. The course lasted for 10 hours. The course was, for most of the teachers and students, the first time they encountered the use of web-discussion as a study method during work-based learning periods and the virtual learning environment used in it (WebCT).

The data includes 22 separate web-discussions from all the work-based learning periods of the Finnish secondary level vocational institute during spring and autumn 2002, and qualitative, evaluative reports about each group and teacher's experiences written by the teacher who tutored the work-based learning period and web-discussion. All the teachers filled in a report about each web-discussion. The questions concerned the prior experiences that the teachers had of the study groups, their attitudes towards web-discussion, their general experiences from this particular work-based learning period, their general experiences from the tutoring during this work-based learning period (other methods than web), descriptions and evaluations of the process of web-tutoring and discussion. The process includes the phases of the process, subject matters dealt with, assessment of the discussion as a learning task, comparison with the principles of authentic discussion (Aarnio (1999). The reporta also included the students' experiences and feedback, and problems and recommendations for the next web-discussion period.

The students' web-discussion data included 7913 separate messages in total. The number of messages varied, but the size of the group was not the decisive factor. Instead, the more important factors were the background features, such as the partakers' vocational background, phase of studies and group behaviour. The smallest groups, student pairs, had discussion data including 13-120 messages. The bigger groups had discussion data including as many as 568-804 messages.

The web-discussion data was analysed with NVivo 1.3 qualitative data analysis software. The data was mainly coded inductively in order to expose what is really going on in students' minds in authentic web-discussion. Two theory-based coding schemes were also used. The inductive analysis followed the principles of hierarchical coding (Richards & Richards 1999). The coding scheme used was based on the phases of authentic dialogue developed by Aarnio (1999) and the other was based on the quality criteria developed by Mahlamaki-Kultanen & Hulkari (2001).

According to Aarnio, the phases of a dialogue include:

1) Starting a new topic

2) Listening/reading the messages in it

3) Recognising the key words

4) Making further questions to understand the message better

5) Answering to those questions

6) Changing the turn

There were about 400 independent sub-discussions with a new topic started by a student. The typical length of a message was two to three sentences. The language used was informal, but still proper. All the discussions covered only topics that had something to do with studying.

The quality criteria (Mahlamäki-Kultanen & Hulkari 2001) used in coding were:

1) Student's familiarisation and reception

2) Tutor's guiding skills and motivation

3) Learning possibilities

4) Appropriate work assignments

5) Interaction between student and tutor

6) Organisation's ability to cope with changes and its willingness to develop

7) Attitudes towards a student

8) Appreciation of a student

9) Trust and given responsibility

10) Presence of tutor

11) Given feedback

12) Possibility to carry out own ideas

13) Atmosphere of the learning community (work place, in this case)

All the issues emerging in the quality criteria were dealt with in each group but the detailed way in which this was done is discussed further in the results section.

To guarantee the quality of the data, the development project was self-evaluated by all the teachers taking part in it. The model for this was 360 °-degree assessment. There were several items that were evaluated, but in this context it is only relevant to mention that the teachers rated the usefulness of the project as 4,5 in the Likert-scale from 1(satisfacory to 5(excellent).

3. Results and conclusions

The expectations towards long authentic discussion chains were not completely fulfilled. Most of the discussions ended after the first follow-up question was answered. It seems that at least in the Finnish discussion culture secondary level vocational student groups need more time and practice to reach an authentic, reasonably long lasting chain of a dialogue in the web. Still, the discussions were often quite authentic and relevant. Typically, the recognitions were factual and mostly informative. Only occasionally somebody noticed an important topic on someone else's message in the discussion and all too often meaningful topics were left uncommented. Some of the groups started only new topics, one after the other. A typical feature of the Finnish discussion style may be that students open the web-forum only to reading the other group-members' messages much more often than they themselves wrote something.

Open work-based learning environments provided the students with many kinds of stimuli to learning. According to their importance, they were grouped as follows:

1) Own study and web-discussion group
2) Customers in the workplace and authentic work
3) Other staff members
4) Tutor in the workplace
5) The tutoring teacher
6) Internet, library
7) Vocational curriculum and studies in the institute.

The principle of authenticity resulted in the situation that the topics discussed in the web were not the only learning objectives of this work-based learning period. This caused some practical problems for the teachers, but indeed made the learning and the whole study program more holistic and interesting for the students, as well as improved its resemblance to natural situations in work life.

Open and authentic discussion provided the groups with good learning skills wonderful possibilities to learn as a group from each other also when they were not physically together. In general, it was typical that students used the group members as discussants for their learning purposes. The things told by the staff in the work place and the actual work provided the context for learning. The teacher and work-place tutor were needed, but their meaning for the student was, for the most part, to provide the prerequisites for learning.

With only little support, the teachers could manage both the technical and the pedagogical aspects of the web-discussion. There were slight differences between the teachers' enthusiasm and ability to conduct dialogue and to make open questions. Clearly, the ability to tutor the authentic dialogues was learned only by doing it.

The principle of student-centered authenticity in the web-discussion makes the work-based learning processes and differences between study groups and individuals visible. The authentic phases of the work-based learning process and discussion about it appeared to be the following:

1) Description of the work-procedures and physical facilities in the workplace
2) Practical arrangements and facts of a work-based learning contract
3) Grasping the principles of the workplace
4) Setting the goals

5) Reflecting one's own role and vocational growth

6) Reflecting one's own vocational specialization and orienteering

7) Evaluating the procedures of the workplace

8) Being recruited to the workplace either permanently or for the holidays

9) End of the work-based learning period and departure from the place

The ability to recognize important discussion items and topics in the work, to conceptualize them and to bring them into the common web-discussion varied a lot according to the vocational student group. In addition, the individuals in the groups differed in their ability and way to learn from the work. Some of the students and student groups could at the best describe what was happening in the workplace, some of the groups could even conceptualize the quite abstract care work, reflect and evaluate the work-procedures and the reasons for them and their own vocational growth, all this together in an open web-discussion.

Web-discussion served also other purposes for the student groups. It provided them with mutual encouragement between the group members. It made the communication about practical issues concerning studying easier between the student in a workplace and a teacher in the vocational institute. Furthermore, some discussion about technical questions concerning web-discussion was present and the problems were solved together.

An extensive portion of the discussion was solving practical everyday problems and issues. A very typical and nice feature was the empathy and encouragement given to other group-members during physical departure. If the messages were plentiful, the support given to the group members was also remarkable. This kind of support in learning from the group should be necessary also for the beginning students, but it seems to be left for the teacher during the individual's first work-based learning period.

The differences between the groups or individuals cannot be explained by simple background variables. Instead, the connections are more qualitative and dependent from both the group, group dynamics, students' vocational competence and the teacher tutoring the web-discussion. Web-discussion is suggested as a method to evaluate the pedagogical functioning of the study group in many respects.

It seemed to be easy for the students to bring new, also problematic topics encountered during work-based learning period into the web-discussion compared to the earlier experiences with traditional tutoring methods. Web-discussion can be used as a powerful counselling tool and an environment to solve small problems before they become unmanageable.

The criteria for the quality for work-based learning (Mahlamäki-Kultanen & Hulkari 2001) seem relevant from the students' viewpoint. All the areas of the quality criteria were commented and reflected on from an authentic need for commentary. There were more items of the concept of quality dealt in the discussions of the more advanced student groups than by beginners. The first year students discussed the students' familiarization, reception and the atmosphere of the learning community. The students from the more advanced classes discussed much more, and more deeply, the organization's ability to cope with changes, its willingness to develop, and the possibility to carry out student's own ideas.

4. Educational and scientific importance of the study

Unlike ready-made learning packages, which, according to Lord (2001), are often quite unpleasant to learners, authentic web-discussion can be tailored according to individual needs and processes. Web-discussion during work-based learning periods can fulfil many needs and goals. It is very flexible and it can be supplied when the need is most urgent. The feeling of belonging to a group can be maintained during physical departure.

Simple web-discussion is a valuable pedagogical tool and it can be a starting phase for more advanced usage of ICT in vocational education. It certainly changes teachers' work. Still, according to our experience from educational practice it seems that going to the web should not be made a technical mystery. In addition, the competence needs of a teacher tutoring work-place learning periods do not differ so much from traditional work-place learning tutoring or teaching in face-to-face situations. The action of "going to the web" should not be exaggerated from the point of view of competence needs of the teacher. Most important seems to be that the teacher knows her/his students, their group-behaviour, competence and learning skills well before the work-based learning period starts. Web-discussion can even be somehow pedagogically convenient, because it gives the teacher some time to concentrate on the messages of the discussion.

More than technical competence, the teacher on the web needs the ability to make a difference between urgent needs and questions and, on the other hand, slowly progressing discussion chains although they can technically be kept separate. The teachers must be tolerant and let the students conduct their discussion about their authentic topics on their own speed. The teacher has to tolerate unfinished things and unanswered questions. Furthermore, she/he has to endure the fact that the students learn through very different routes, all of which are visible to the teacher on the screen. There are many good reasons to go on with our web-discussion development programme.

5. References

Aarnio, H. 1999. Dialogia etsimassa Acta Universitatis Tamperensis 676. (Searching for a dialogue)

Aarnio, H & Enqvist, J. 2001. Autenttinen ja dialoginen osaamisen rakentaminen verkossa. Kasvatus. (Authentic and dialogic construction of knowledge in the web.)

Berry, J. 2000. Traditional training fades in favor of e-learning. InternetWeek 800, 33-34.

Flanagan, J., Baldwin, S. & Clarke, D. 2000. Work-Based Learning as a means of developing and assessing nursing competence. Journal of Clinical Nursing 9(3), 360-368.

Greengard, S. 1999. Web-based Training Yields Maximum Returns. Workforce 78(2), 95-96.

Lord, M. 2001. They're online and on the job. US News & World report 131(15), 72-75.

Mahlamaki-Kultanen, S. & Hulkari, K. 2001. The quality of work-related learning in Practical Nurse education. Paper presented at the Annual Conference of the International Vocational Education & Training Association 31.7-2.8.2001. Jamaica.

Finnish National Board of Education 2000. Tyopaikkaohjaajien koulutus. Koulutusohjelman perusteet. Moniste 16/2000. Helsinki:Opetushallitus.

Richards, T. & Richards, L. 1999. Using Hierarchical Categories in Qualitative Data Analysis. In: Kelle, U. (ed.). Computer-aided Qualitative Analysis. Theory, Methods and Practice. Sage Publications.80-95.

Sinko, M. & Lehtinen, E. 1999. The Challenges of ICT in Finnish Education. The Finnish National Fund for Research and Development. Atena. Juva.

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